

## ABSTRACT OF THE DISCLOSURE

[0076] A transmit filter (100) receives a stream of data symbols (DT\_TX) at a baseband symbol clock rate. An available clock (FREF) is used to generate sample points for producing a generating an oversampled signal. The available  
5 clock is independent from the baseband symbol clock, and does not need to be an integer multiple of the clock. Upon identifying a start sequence in the data stream, a phase tracking circuit (106) is used to determine a current position relative to the baseband symbol clock. A state circuit (104) stores the last three, or more, data symbols. Based on the last three data symbols (which determines  
10 the shape of the curve for the current data symbol) and the current position (which determines the current position on the curve), a filter circuit (108) generates a sample point.